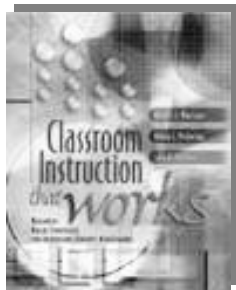


**Top Two Instructional Strategies that Affect Student Achievement
(%tile gain over the control group)**

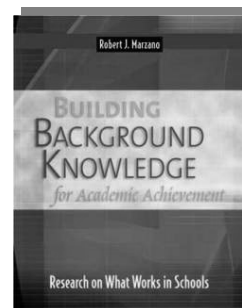
*Based on Marzano, R.J., Pickering, D. J., & Pollock, J. E. (2001)
Classroom Instruction That Works: Research-based strategies...*



**Identify Similarities
and Differences (45%)**


**Summarizing and
note taking (34%)**

**Sustained Silent Reading
Vocabulary Support**



See ASCD for Resources

Development of Higher Level Thought



DECIDING

Name: _____ Date: _____ Title/Topic: _____

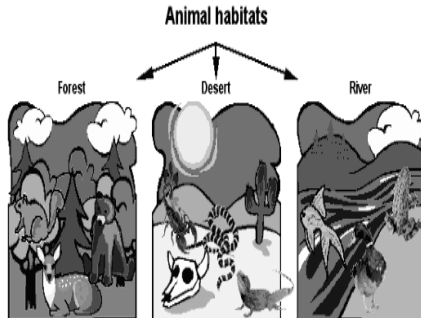
My Problems →	
I Think That →	
I'll Find Out By →	
I Found Out That →	
Conclusion →	

GO.8.1

<http://www.region15.org/curriculum/DECISIONMAKING-Landscape.doc>

Applicability for a Wide Range of Learners

Animal habitats



Forest

deer

bear

squirrel

Desert

lizard

scorpion

snake

River

duck

fish

frog

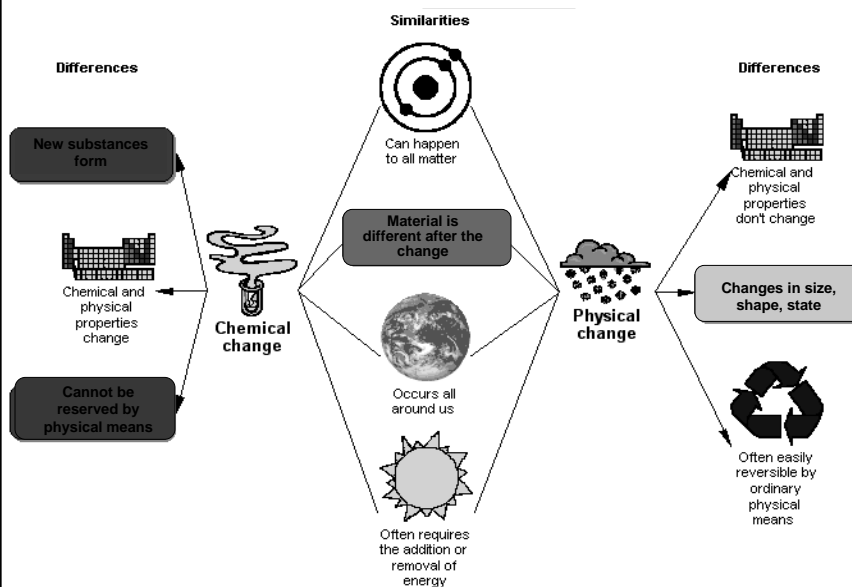
Source: Kidspiration www.inspiration.com

Increased Language Development

- Higher-level thinking prompts more use of language.
- Students have more exposure to the language of thought.
- New content vocabulary is clearly presented on the organizer.
- Students must incorporate their own words when summarizing the information presented on an organizer.



Physical and Chemical Changes



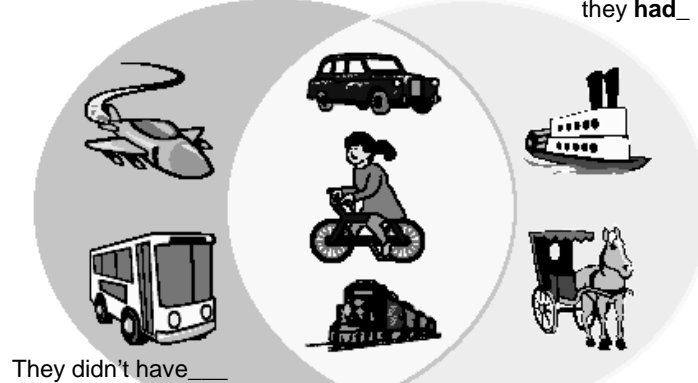


Transportation over time



Now we have ____

100 years ago
they had ____



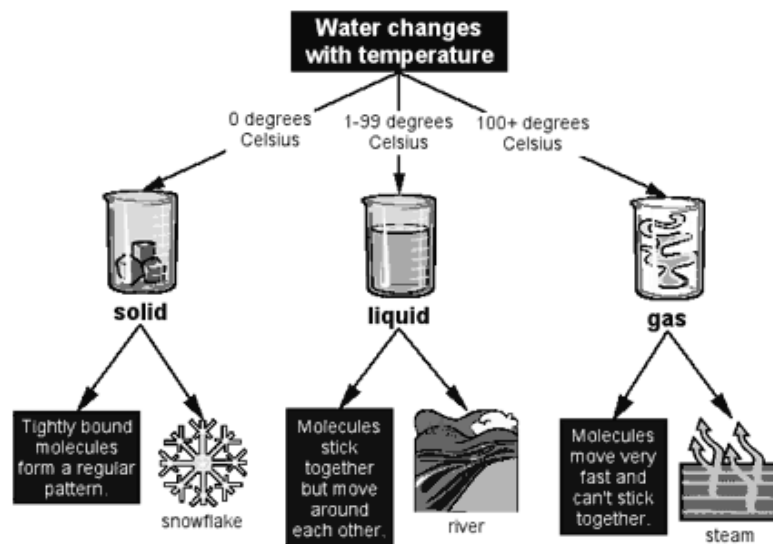
They didn't have ____

They **had** ____, and **so do we**.

They **had** ____, and **we do too**.

Source: Kidspiration
www.Inspiration.com

Greater Retention for all Learners, Especially if Visuals



Source: Kidspiration, www.Inspiration.com

More Equitable Assessment Measures

CAUSES & CONSEQUENCES FOR AN EFFECT

Name: _____ Date: _____

Give 2 causes and 1 consequence for each event.

Event 1. Happens

Because

Because

Consequence _____

Event 2. Happens

Because

Because







Consequence _____

GO.4.4

<http://www.region15.org/curriculum/DECISIONMAKING-Landscape.doc>

Organizer # 1

BIG IDEA: We eat different plant parts.







fruit of some plants 	leaves of some plants 	stems of some plants 
roots of some plants 	seeds of some plants 	flowers of some plants 

LANGUAGE OBJECTIVE: Students practice the structures:

This is lettuce. Lettuce is an example of leaves. OR These are peas. Peas are seeds.

CHALLENGE: Students use the structure, "Beets belong(s) in the classification roots". They give more information about the plant or tell about cooking or eating the foods.

BIG IDEA: We eat different plant parts.

fruit of some plants 	leaves of some plants 	stems of some plants 
roots of some plants  YUCA	seeds of some plants  Passion Fruit	flowers of some plants  Flor de calabaza

LANGUAGE OBJECTIVE: Students practice the structures: This is Spinach. Spinach is an example of leaves. OR these are apples. Apples are fruits.

CHALLENGE: Students use the structure, “Yuca belong(s) in the classification roots”. They give more information about the plant or tell about cooking or eating the foods.

BIG IDEA: Fruits and vegetables vary in size.

Note: on picture cards, it is often difficult for students to differentiate the real size of unfamiliar foods. Enlarge or reduce the pictures to represent actual size. Use color-coded cards with common and less common foods to differentiate vocabulary for the range of learners. For example, banana is more common than rhubarb.

LANGUAGE OBJECTIVE: Students use comparative language _____ is smaller than and bigger than _____.
Students use superlative language _____ is the biggest. _____ is the smallest.

CHALLENGE: Students rank the “challenge foods” and discuss personal experiences, and describe how the food is prepared for eating. For example: peel the banana, husk the corn, crack the coconut shell, etc

BIG IDEA: There is a process of growing crops and ways to get more food from the land.

PLANTING



CARING FOR PLANTS



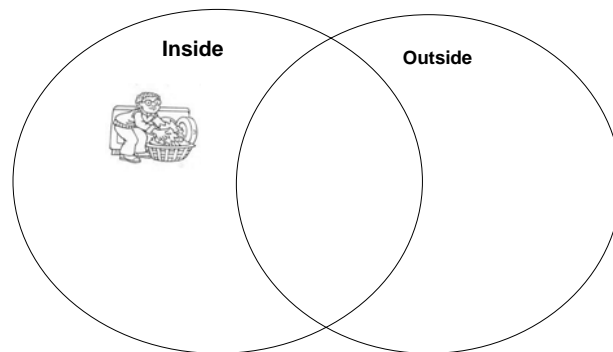
HARVESTING CROPS



FAMILY WORK

BIG IDEA: Family members work together to do chores and errands.

CONTENT OBJECTIVE: Sort work pictures into 3 groups:



CHALLENGE: Think about all cultures.

Pay attention to the job, not the tools used to do the job.

LANGUAGE OBJECTIVES:

Describe pictures:

He is _____ing.

She is _____ing.

They are _____ing.

Ask, "Do you agree?"

Challenge: Use prompts to agree, disagree and support opinions.

CHALLENGE

I agree with _____ that _____.

I concur with _____ that _____.

I support that idea because _____.

I disagree with _____ that _____.

In some cultures people might _____.

In my opinion _____ could be done _____.

If people didn't have _____, they would have to _____.

COMPARE AND CONTRAST DIAGRAM

Name: _____ Date: _____

Story 1 _____

Story 2 _____

How Alike?

How Different?

With Regard To

↔

↔

↔

↔

GO.6.2

www.region15.org/curriculum/graphicorgs.html template modified

COMPARING AND CONTRASTING TWO SIMPLE PICTURE BOOKS FOR CHILDREN

POSSIBLE BIG IDEAS: Everyone has problems to solve. Sometimes it takes many tries to solve a problem. Sometimes everyone working together will solve a problem. Sometimes thinking and special talents will solve a problem.

Aspects of Comparison	The Goat in the Chile Patch	The Farmer and the Beet
Main character	young boy	farmer
Problem	goat eating chillies	beet too big to pull
Ideas for solving	offer to help, take turns	ask for help, work together
Helpers	rooster, bull, mosquito	cow, cat, mouse
How problem was solved	Mosquito bit goat.	Mouse pulled with others.
Solution	Goat ran away.	The beet came out.
Ending	Goat never returned.	Farmer was thankful

NOTE: This Venn Diagram is based on the two children's picture books, *The Goat in the Chile Patch* by Lada Josefa Kratky and *The Farmer and the Beet*, Addison Wesley publisher. The teacher asks students for comparisons based on the simplified Venn line.

DIRECTIONS: This is a different way to compare and contrast *The Goat in the Chile Patch* by Lada Josefa Kratky and *The Farmer and the Beet*, Addison Wesley publisher. The teacher reads the similarity and half of the students choral read the differences for one story. The other half choral read the differences for the other story.

Aspects of Comparison	The Goat and the Chile Patch	The Farmer and the Beet
Problem	A goat is eating the farmer's chiles. The farmer shouted at the goat. The goat kicked the farmer over the fence.	A farmer has a problem with his vegetable crop. The farmer wants a beet for dinner, but the beet is too big. The farmer can't pull it.
1 st attempt	A rooster tried, but it didn't work.	1 st animal helper came. A horse helped pull, but the beet was too big.
2 nd attempt	A dog tried, but it didn't work.	2 nd animal helper came. A cow helped pull, but the beet was too big.
3 rd attempt	A bull tried, but it didn't work.	3 rd animal helper came. A dog helped pull, but the beet was too big.
4 th attempt	A horse tried, but it didn't work.	4 th animal helper came. A cat helped pull, but the beet was too big.
Solution	A mosquito bit the goat in the ear. The goat ran away.	5 th animal helper came. A mouse helped pull. Together they all pulled out the beet.
Ending	The farmer thanked the mosquito, and the goat was never seen again.	The problem was solved. All the animals ate the beet for dinner.

NOTE: The second Venn sample for this story demonstrates use of repetitive language for the following linguistic purposes: use of ordinal numbers, practice with negative past tense, "It didn't work," and repetition of "too" as a negative descriptor, "It was too big." In addition, students get repetitive practice with a sentence pattern for contrasting statements, "_____, but _____. After a class reading, partners take turns reading the similarities first and the related differences for each line.

Classmate Comparison

BIG IDEAS:

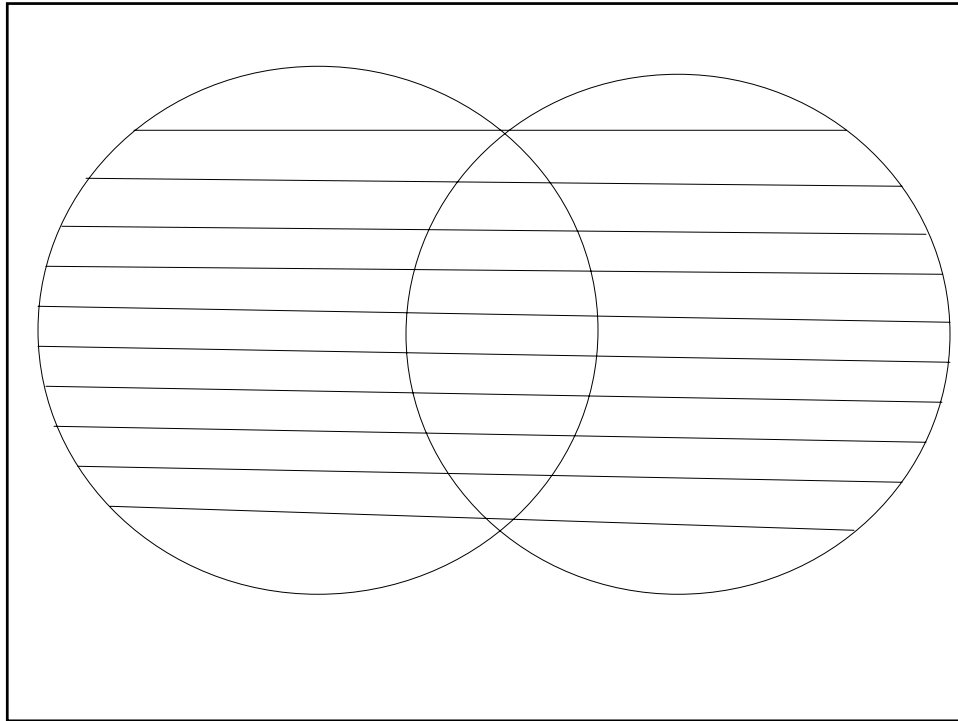
- All people share similarities and are unique from all others.
- Graphic organizers help organize information.



CONTENT OBJECTIVE

- Compare and contrast yourself and a classmate.
- Discuss aspects of comparison.





LANGUAGE OBJECTIVES:

1. Orally interview each other.
Use sentence prompts if needed.
Write (or draw) information on a Venn Diagram.
2. Use sentence prompts to write comparative statements based on your Venn.



Challenge: Use paragraph frames to write paragraphs comparing and contrasting yourself and a classmate.

1. How old are you? _____ → I am _____ years old.
2. Where do you live? _____ → I live in _____. (city name)
I live on _____. (street name only)
I live at _____. (address)
3. Where are you from? _____ → I am from _____.
4. How many brothers/sisters do you have? I have ____ OR I am an only child.
5. How long have you lived in ____? I've lived here for _____.
6. What is your favorite subject in school? My favorite subject is _____.
7. What is your favorite book? My favorite book is _____.
8. What do you like to do in your free time? I like to _____.

1. _____ and I are many in many ways.
(Name of classmate)
2. We are both _____.
3. _____ and I both live _____.
(Name of classmate)
4. We both speak _____.
5. We are in the same grade in school.
6. _____ and I have the same _____.
7. We are almost the same age.
8. We have a common interest. We both like _____.
9. We are both studying _____.
10. His (or her) family is _____, and so is mine.
11. _____ likes to _____, and so do I.
(Name of Classmate)
12. I want to be _____, and so does _____.
(Name of classmate)
13. Our favorite _____ is _____.



DIFFERENCES: How are you and your classmate different?

1. _____ and I are different in several ways.
(Name of classmate)
2. _____ likes to play _____, but I don't.
(Name of classmate)
3. _____ but I like _____
(Name of classmate)
4. I have _____, but he (or she) doesn't.
5. We enjoyed different _____.
6. _____ has _____, but I have _____
(Name of classmate)
7. His (or her) family is _____, but mine is _____.
8. His (or her) hair is _____, but mine is _____.
9. He (or she) is taller (or shorter, older, younger) than I am.
10. I am taller (shorter, older) than _____ is.
(Name of classmate)

Write your own sentences or try the challenge.

CHALLENGE: Write two paragraphs.

How are you and your classmate similar and how are you different?

_____ and I interviewed each other to determine how we are alike and different.
(Name of partner)

It is evident that we are alike in many ways. The most significant similarity between us is that we both

_____. Each of us _____.

We _____ the same _____.

Like _____, I _____.

Another similarity between us is that _____.

_____ 's favorite _____ is _____, and mine is too.

We also share a common interest in _____.

A surprising likeness is that both _____ and I _____.

In addition to our similarities, we differ from each other.

A significant difference is that _____, but I _____.

While _____ likes to _____, I _____.

(His or her) favorite _____ is _____; however, mine is _____.

Unlike _____, who _____, I _____.

Another difference between us is that I _____, while _____.

To me, the most unique difference between us is _____.

I _____, but _____.

In conclusion, we found that although we differ in many ways, we also have a great deal in common.

BIG IDEA: Insects and Arachnids have many similarities but differ in important ways. **BIGGER IDEAS:** Animals are classified based on common characteristics. Features and behaviors of animals help them meet their needs. Animals have a life cycle and reproduce to maintain their species. Some animals are both beneficial and harmful to humans.

Aspects of Comparison	Insects	Arachnids
1. animal group (phylum)	grasshoppers, ants, flies, many others	spiders, ticks, scorpions, daddy long legs, a few others
2-6. characteristics of the phylum		
3. body	3 parts (head, thorax, abdomen)	2 parts (head, abdomen)
4. appendages	6 legs	8 legs
5. senses,	simple and compound eyes, antennae for smelling, feeling, sometimes hearing	simple eyes second set of appendages used for touching and smelling, sensory bristles in some, some hearing organs on legs.
6. breathe	breathe through body openings	air tubes in some, most with primitive respiratory organs (book lungs)
7. move	Most fly, crawl, some jump	crawl, some jump
8. eat	eat other insects, some eat wood, others bread, leaves, nectar, wool.	carnivorous, with the exception of mites, some (spiders) spin webs
9. reproduce	Metamorphosis, most have 4 stages. All lay eggs.	Molt (shed exoskeleton) as they grow. All but scorpions lay eggs.
10. negative effects on humans	Some cause destruction: food, clothing, plants, wood. Some cause disease for pain.	Few are poisonous. Others can cause disease.
11. positive effects on humans.	Some pollinate flowering plants, some provide dyes, some health benefits, some produce silk used in clothes	Most eat insects, preventing destruction to food

CHALLENGE: Use the language samples provided to demonstrate sentence variety when comparing and contrasting.

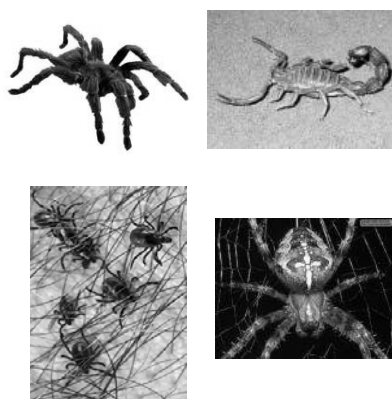
32

ARTHROPODS

Insects



Arachnids



LANGUAGE SAMPLES FOR COMPARING AND CONTRASTING

DIRECTIONS: Use some of the sentence prompts to demonstrate sentence variety when comparing and contrasting.

CHALLENGE: After writing each similarity, write the differences for that aspect of comparison rather than writing all of the similarities and then all of the differences.

SIMILARITIES

EXAMPLES:

1. Insects and arachnids are **alike** in many ways.
2. The **most important similarity is** that they are both arthropods.
3. **Like all arthropods**, they are invertebrates.
4. Insects, **like arachnids**, have an exoskeleton, a hard body covering.

CHOOSE FROM THE SENTENCE OPTIONS TO WRITE MORE SIMILARITIES

5. **Both** animals have the **same kind of** _____.
6. A **similarity between the two animals is** _____.
7. A **common characteristic** of arachnids and insects **is** that they _____.
8. **Both** animals **share** (have) the ability to _____.
9. Eating (use any verb that fits) _____ **is common for both** arachnids and insects.
10. **In addition to** _____, **both** animals _____.
11. Their appearance (habitat) **is similar** in many ways.
12. **Similar to** insects, arachnids _____.
13. **Each** animal _____.
14. A **commonality between these two animals is** the way they _____.
15. Insects have _____ which **is similar to (identical to, like)** that of arachnids.
16. Being primarily _____ animals, **each** _____.

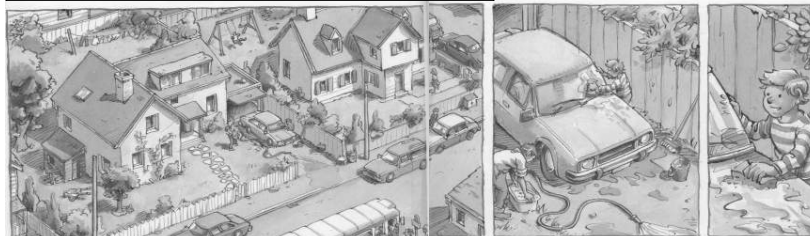
CONTINUED: CHOOSE FROM THE SENTENCE OPTIONS TO WRITE MORE SIMILARITIES

17. The practice of eating (any action) _____ is similar to each (common to both).
18. Arachnids and insects are representatives of all members of the _____.
19. Arachnids' _____, similar to that of insects, _____.
20. Insects and arachnids have the same (belong to the same, are from the same) _____.
21. Common needs are met in similar ways.
22. Sharing a common _____, both insects and arachnids _____.
23. Arachnids _____, similarly, insects _____.
24. Insects are as _____ as arachnids.
25. Neither insects _____ nor arachnids.

A Country Far Away

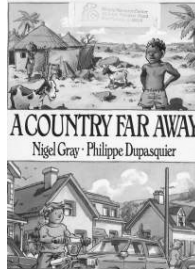


Today was an ordinary day. I stayed home.



Avoid Stereotypes

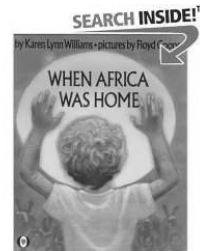
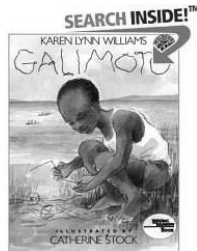
Source
www.amazon.com



In a South African City
(Child's Day) (Library
Binding)

by Gisele Wulfsohn

? Unknown to me



Language to Avoid Making Generalizations

Typically both cultures _____.

It is **typical** for family members in each culture to _____.

The people in each culture **tend to** _____.

There is **a tendency** in both cultures to _____.

Generally these two communities _____.

Japanese and Mexican, **in general**, _____.

Customarily, the people of Japan and Mexico _____.

Apparently both cultures _____.

It **seems apparent that** the families in each society _____.

Evidently each culture _____.

One could infer that both Japanese and Mexicans _____.

Usually the children in each country _____.

DIFFERENCES

Very evident differences could be expressed in statements similar to those in the section on animals.

Language to Avoid Making Generalizations

Typically Mexicans, _____, but the Japanese _____.

In general, people in Japan _____; however, this is not common in Mexico.

Generally in the Mexican family, _____, yet in the Japanese home _____ is the custom.

Mexicans **are more apt to** _____ **than** are the Japanese

Although there is a tendency in the Japanese culture for people to _____, the custom in Mexico is to ____.

In Mexico people customarily _____, while in Mexico _____ is more common.

It seems that Mexican children _____, while Japanese Children _____.

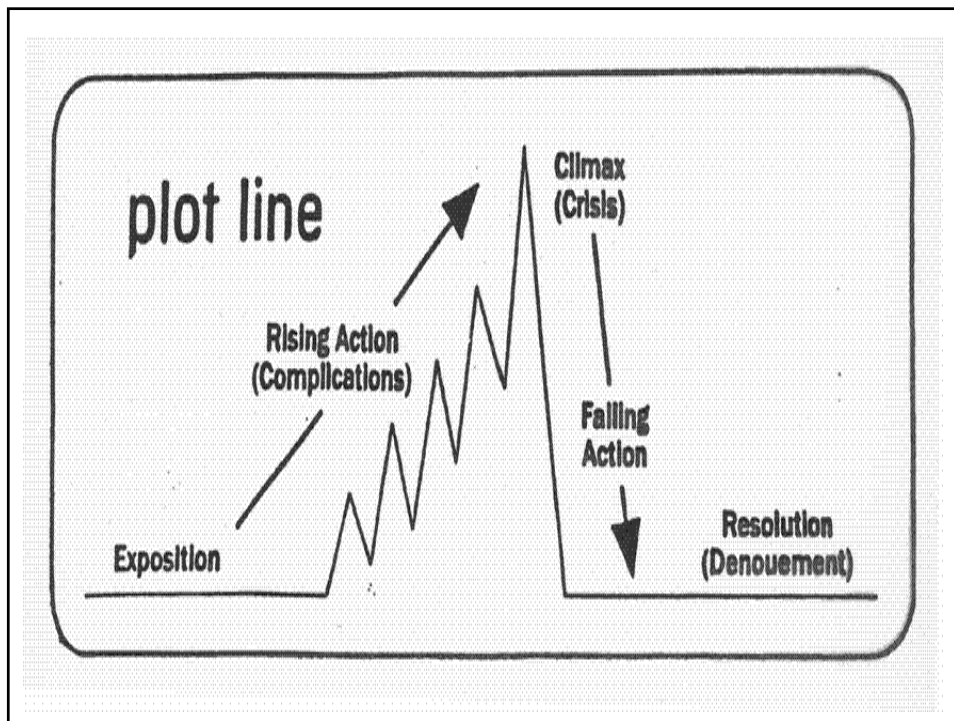
PLOT COMPARISON: *Bringing the Rain to Kapiti Plain* and *The Wind Eagle*.

BIG IDEA: Long ago, people in many cultures told folktales to explain the unknown.

BIGGER IDEA: All cultures have ways of explaining the unknown. (See directions next page.)

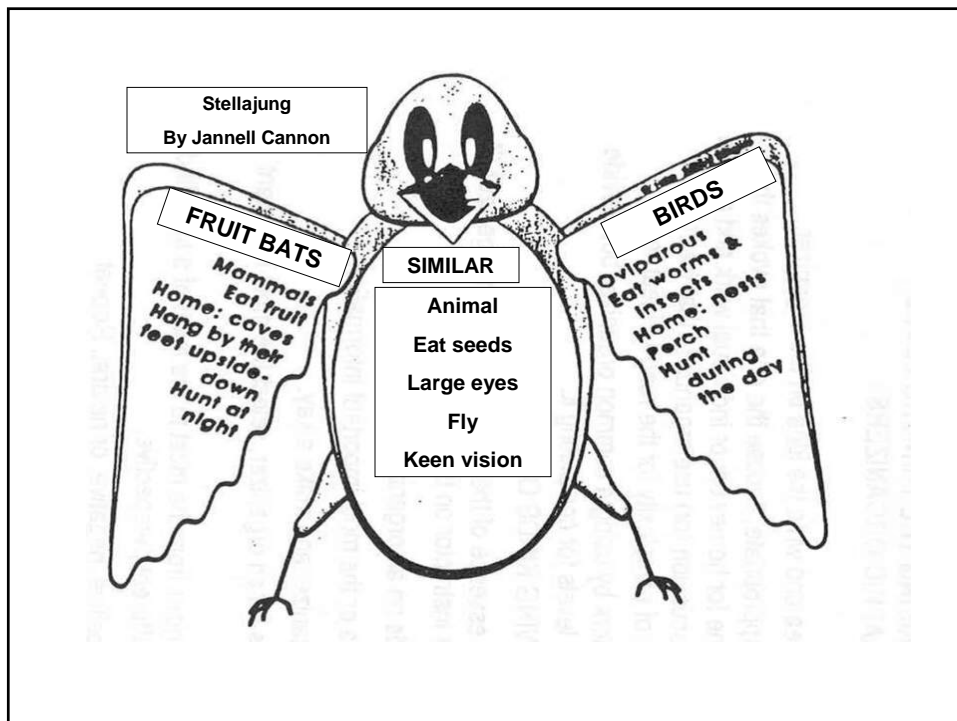
Aspects of Comparison			
1. Title, Genre, & Author	<i>Bringing the Rain to Kapiti Plain</i> Poem based on Folktale by Verna Aardema	Picture book	<i>The Wind Eagle</i> , Native American Folktale Retold by Joyce McGreevy
2. Exposition	Kipat, African from the Nandi Tribe, was tending cattle on the Kapiti plains	young male, in the country doing work related to food	Gluscabi, Native American, tribe unknown was fishing on a lake in the mountains
3. Conflict & consequences	There was a drought. If rain didn't come to the plains, the cattle might die.	Conflict: Man against Nature There was a weather-related problem that could affect their food supply.	The wind was so strong that Gluscabi couldn't fish. Fish was an important food source.
4. Rising Action	Eagle flew overhead, feather fell. He used the feather to make an arrow. He also made a bow.	Each man felt he had the power to solve the problem and began immediately to seek a solution.	Gluscabi shouted at the wind, but it wouldn't stop, so he struggled up the windy mountain to stop the wind.
5. Climax	Kipat shot the arrow into the clouds, and the rain fell. He had the strength needed for this task.	Natural event explained through fantasy, supernatural powers were involved in each.	A giant eagle was flapping his wings and causing the wind. Gluscabi tricked the eagle and trapped him in a crevice in the rocks.
6. Falling Action	The drought ended, and the cattle had green grass to eat. Kipat married and had a son.	The problem seemed to be solved.	The water was calm. Gluscabi and the people of his village could fish without any problems.
7. A second conflict	The years passed, but from time to time there is not enough rain, so the same solution is needed.	The solution wasn't permanent. Another problem arose.	After a time, the air becomes stale, fish begin to die, and people get sick. Gluscabi goes up the mountain again, releases the eagle.
8. Resolution or Denouement (Ending)	Kipat's son tends the cattle and shoots the arrow into the air to release the rain when it is needed.	Severe weather problems rare.	The wind eagle promised to only flap his wings softly, but once in awhile he forgets.

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SENTENCE PROMPTS FOR MAKING COMPARISONS

_____ and _____ are alike in many ways.
 Perhaps the most significant similarity is _____.
 Both _____ and _____ the same _____.
 Both _____ share _____.
 _____ as _____ as _____ as _____.
 (is, are) (adjective: tall, old, etc.)
 A common characteristic of each is _____.
 Like _____, _____.
 _____, like _____.
 _____, similar to _____.
 _____, and so _____.
 (is, are, does, do)
 Neither _____ nor _____.
 Each _____ a similar _____.
 _____, likewise _____.
 _____ and _____ are different in many ways.
 _____ er than _____.
 (is, are) (adjective: taller, older, etc.)
 _____ not as _____ as _____.
 (is, are) (adjective, tall, old, etc.)



COMPARISON OF ENERGY SOURCES

BIG IDEA: There are multiple sources of energy each with advantages and disadvantages.

Source	Description	Uses	Obtain by	Renewable	Cost	Dangers
Oil						
Coal						
Nuclear Fission						
Solar Energy						

DIRECTIONS: Use **Team Jigsaw** to teach the information about your assigned energy source.

CHALLENGE: Use **sentence prompts** to compare and contrast the energy sources based on the aspects of comparison.

SUPER CHALLENGE

Rate the last four columns. Hardest to obtain to easiest, takes the longest time to renew to the shortest time, costs the most to costs the least, is the most dangerous to the least dangerous to workers and/or consumers. 4 is most, 1 least.

Source	Description	Uses	Obtain by	Renewable	Cost	Dangers
Oil						
Coal						
Nuclear Fission						4MOST
Solar Energy						1LEAST

Prepared by Danette Erickson Meyer and Jeanette Gordon, Illinois Resource Center, (847) 803-3112

FOUR KINDS OF MOUNTAINS

BIG IDEA: The earth's moving plates cause mountains to form in different ways.

MOUNTAIN	# Plates	Cause	Effect	Picture
Fold Mountains				
Block Mountains				
Dome Mountains				
Volcanoes				

DIRECTIONS: Use the cooperative structure of Within-Team Jigsaw to complete the comparison matrix.

CHALLENGE: Use cause-effect sentence prompts to write the cause-effect relationships in different ways.

Prepared by Jeanette Gordon, Illinois Resource Center

COMPARISON OF WEATHER DATA AND WEATHER INSTRUMENTS

WEATHER DATA	WEATHER INSTRUMENT	UNIT OF MEASUREMENT	DESIGN (HOW IT'S MADE)	CHALLENGE What is the scientific principal that influences the design?
temperature				
air pressure				
wind speed				
relative humidity				

DIRECTIONS: Use Within-team Jigsaw to complete the matrix.

CHALLENGE: Read more complex information to answer the final column.

After each team member teaches his/her row, collaborate to complete the final column.

How the Body Fights Disease

BIG IDEA: The body has defense mechanisms that help prevent illness.

Body feature	Where is it?	What does it look like? Draw or describe.	How does it protect?	CHALLENGE Read a harder passage to tell more about how each protects:
Skin				skin
Saliva				Digestive System
Mucus				Respiratory System
Immune system				white blood cells and antibodies

CHALLENGE: When finished, prepare to role-play one of the defense systems of the body.

CELL TYPES

BIG IDEAS: Body cells work together to sustain life.
There are different kinds of cells, each with a special job.

NAME	Function of Cells	Shape of cells & location	Why function is important	How cells perform function

CHALLENGE: Use sentence prompts to express why and how cells perform their functions: Sequential action, simultaneous action, conditions, and cause-effect.
Or use sentence prompts to compare and contrast the cells.